

2004 Toxics Release Inventory (TRI) Annual Report



October 2006

2004 TRI SUMMARY REPORT

The Emergency Planning and Community Right-to-Know Act (EPCRA) was passed by Congress under Title III of the Superfund Amendments and Reauthorization Act of 1986, to acknowledge the importance of public awareness and emergency planning for community safety. Prior to EPCRA, information on the presence of toxic and industrial releases was not readily available to the public as facilities were not required to disclose this information. The reporting requirements of EPCRA, Sections 311, 312 and 313, provide information to promote chemical safety, protect public health and our environment. Sections 311 and 312 of EPCRA require businesses to report the locations and quantities of chemicals stored on-site to state and local governments in order to help communities prepare to respond to chemical spills and similar emergencies. EPCRA Section 313, Toxics Release Inventory (TRI), requires EPA and the States to annually collect data on releases and transfers of certain toxic chemicals from industrial facilities, and make the data available to the public in the annual report. In 1990 Congress passed the Pollution Prevention Act which required that additional data on waste management and source reduction activities be reported under TRI. The goal of TRI is to empower citizens, through information, to hold companies and local governments accountable in terms of how toxic chemicals are managed. Further information on EPA's TRI Program is available at <http://www.epa.gov/tri/>.

The list of industries subject to reporting under the TRI program is commonly divided into two groups called "Original" and "New". Original Industries are those covered under the original legislation. New Industries are those which were added in 1998.

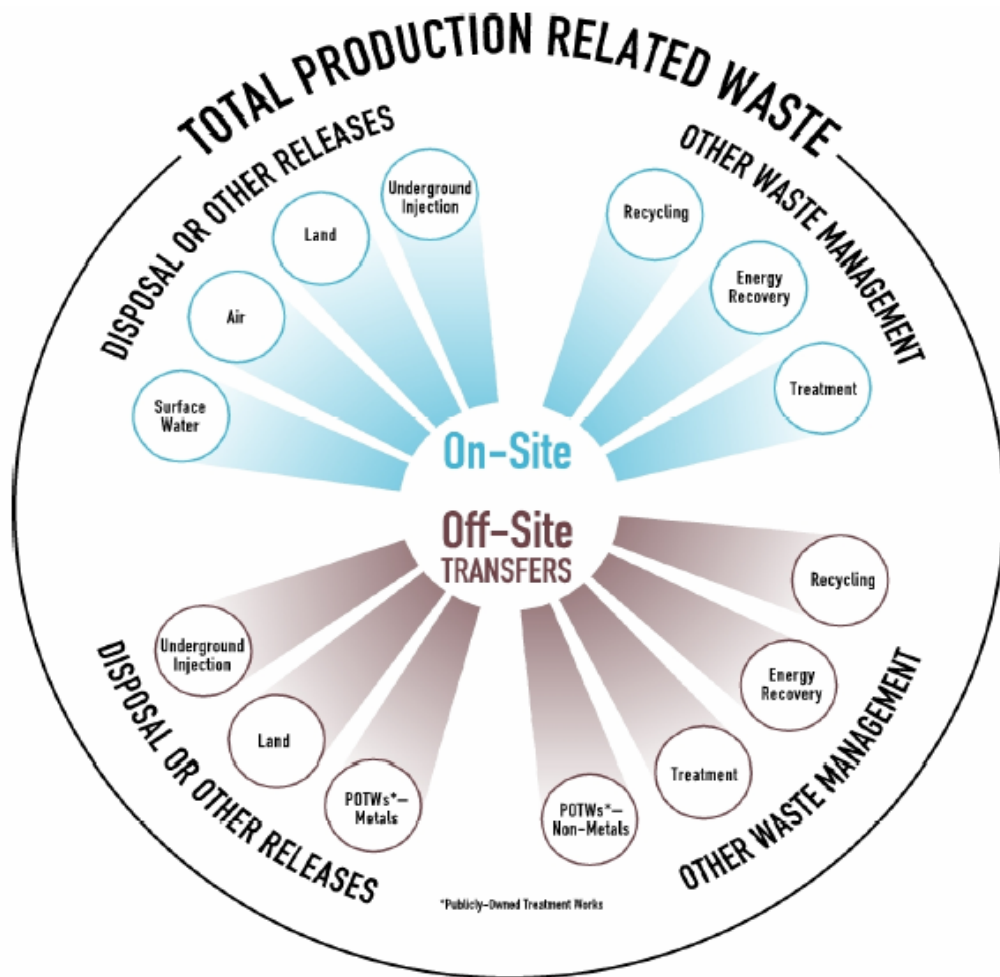
Original Industries: Standard Industrial Classification (SIC) Codes 20-39

SIC	Industry Group
20	Food
21	Tobacco
22	Textiles
23	Apparel
24	Lumber and Wood
25	Furniture
26	Paper
27	Printing and Publishing
28	Chemicals
29	Petroleum and Coal
30	Rubber and Plastics
31	Leather
32	Stone, Clay, and Glass
33	Primary Metal
34	Fabricated Metals
35	Machinery (excluding electrical)
36	Electrical and Electronic Equipment
37	Transportation Equipment
38	Instruments
39	Miscellaneous Manufacturing

New Industries Reporting to TRI as of the 1998 Reporting Year

SIC	Industry Group
10	Metal mining (except for SIC codes 1011,1081, and 1094)
12	Coal mining (except for 1241 and extraction activities)
4911, 4931, and 4939	Electrical utilities that combust coal and/or oil (SIC codes 4911, 4931, and 4939)
4953	Resource Conservation and Recovery Act (RCRA) Subtitle C hazardous waste treatment and disposal facilities (SIC code 4953)
5169	Chemicals and allied products wholesale distributors (SIC code 5169)
5171	Petroleum bulk plants and terminals (SIC code 5171)
7389	Solvent recovery services (SIC code 7389)

The data collected by EPA can be categorized into: a) on-site disposal or other releases, b) off-site disposal or other releases, and c) other waste management (both on-site and off-site). *On-site disposal or other releases* consists mainly of disposal to Class I Underground Injection wells, RCRA Subtitle C landfills, and other on-site landfills. Releases include air emissions, surface water discharges, Class II-V Underground Injection wells, land treatment, surface impoundments and other land disposal. The data is reported in Section 5 of the Form R. *Off-site disposal or other releases* are transfers off-site for disposal or other waste management. The data is reported in Section 6 of the Form R. *Other waste management* includes amounts recycled, burned for energy recovery and treated both on-and off-site. The data is reported in Section 8 of the Form R. Total production related waste refers to all three categories combined. The chart below pictorially describes EPA categories for reporting TRI data.



DEQ also collected TRI data from facilities subject to the reporting requirements and maintained that information in a database separate from EPA. Generally, both agencies provide data to the general public; however, the data presented below was generated from DEQ's database but presented in a slightly different summary format when compared to EPA.

Data Source: Louisiana Department of Environmental Quality
Toxics Release Inventory (TRI) Database, 2004

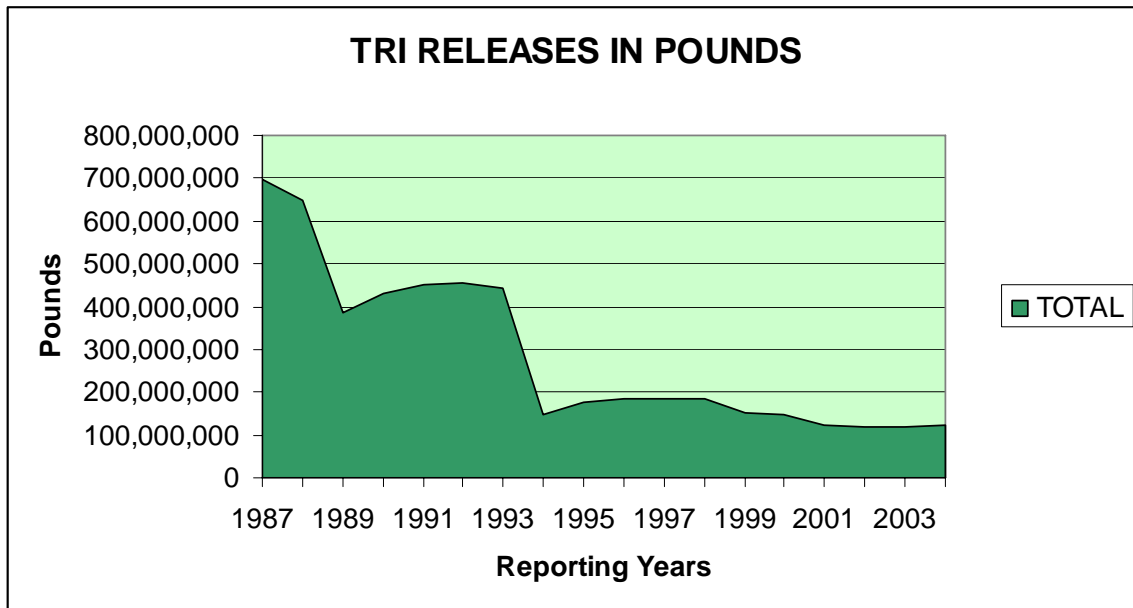


Chart 1. TRI releases decreased approximately 82% from 1987 to 2004, but showed an increase of 4% from 2003 to 2004. Totals are based on releases to air, water, on-site land, and underground injections.

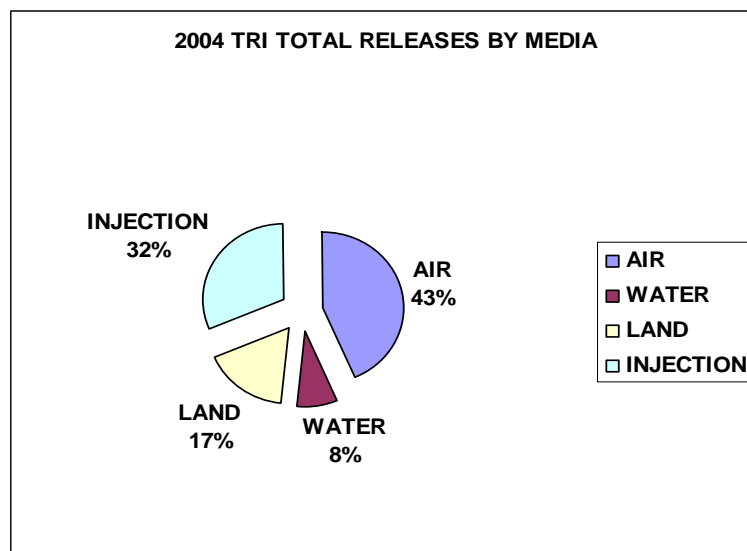


Chart 2. TRI total air releases represented 43% of the state total releases (54 million pounds), water represented 8% (10 million pounds), land represented 17% (21 million pounds) and underground injection represented 32% (39 million pounds).

2004 TRI TOTAL RELEASES

2004 TOP 10 REPORTING FACILITIES RANKED BY TOTAL TRI RELEASES * (IN POUNDS)			
RANK	FACILITY	PARISH	TOTAL
1	MONSANTO COMPANY	ST. CHARLES	13,012,843
2	CYTEC INDUSTRIES, INC.	JEFFERSON	9,378,734
3	ANGUS CHEMICAL CO.	OUACHITA	8,483,796
4	INTERNATIONAL PAPER, MANSFIELD	DE SOTO	8,105,316
5	CF INDUSTRIES, INC.	ASCENSION	7,118,846
6	RUBICON, INC.	ASCENSION	5,904,021
7	CHEMICAL WASTE MANAGEMENT LAKE	CALCASIEU	4,831,768
8	LOUISIANA PIGMENT COMPANY L.P.	CALCASIEU	3,605,692
9	CLECO CORPORATION – DOLET HILL	DE SOTO	3,432,164
10	EXXON MOBIL BATON ROUGE REFINERY	EAST BATON ROUGE	3,301,850
TOP 10 FACILITY TOTAL			67,175,030
STATE TOTAL			124,616,228

Table 1. *Total releases to air, water, on-site land, and underground injection only. For 2004, the Top 10 facilities represent more than half (**54%**) of the state total releases. Monsanto reported the largest total for all releases.

2004 TOP 10 PARISHES RANKED BY TOTAL TRI RELEASES (IN POUNDS)			
RANK	PARISH	# FACILITIES	TOTAL
1	ASCENSION	18	19,378,355
2	ST. CHARLES	22	17,582,188
3	CALCASIEU	33	14,955,123
4	DE SOTO	4	11,614,274
5	OUACHITA	11	9,944,079
6	JEFFERSON	23	9,659,358
7	EAST BATON ROUGE	23	9,506,348
8	IBERVILLE	18	5,495,135
9	ST. JAMES	9	4,147,538
10	MOREHOUSE	1	2,878,648
TOP 10 PARISH TOTAL			105,161,046
STATE TOTAL			124,616,228

Table 2. The Top 10 parishes account for approximately **84%** of the state total TRI releases for 2004. The leading parish in total releases was Ascension Parish, which has 18 facilities that report to TRI, including CF Industries and Rubicon, largest emitters in the parish. Ascension Parish has led all parishes in total releases for the last ten years.

2004 TRI RELEASES TO AIR

2004 TOP 10 FACILITIES RANKED BY TRI RELEASES TO AIR (IN POUNDS)

RANK	FACILITY	PARISH	TOTAL
1	CF INDUSTRIES, INC.	ASCENSION	6,117,846
2	INTERNATIONAL PAPER, MANSFIELD	DE SOTO	4,811,215
3	INTERNATIONAL PAPER - LA MILL	MOREHOUSE	2,137,819
4	EXXONMOBIL CHEMICAL COMPANY	EAST BATON ROUGE	1,831,694
5	BOISE PACKAGING AND NEWSPRINT	BEAUREGARD	1,760,801
6	INLAND PAPERBOARD & PACKAGING	WASHINGTON	1,756,482
7	FIRESTONE POLYMERS	CALCASIEU	1,726,371
8	MOSAIC PHOSPHATES CO.	ST. JAMES	1,586,131
9	DOW CHEMICAL COMPANY	IBERVILLE	1,464,771
10	STONE CONTAINER CORP	JACKSON	1,383,424
TOP 10 FACILITY TOTAL			24,576,554
STATE TOTAL			53,980,511

Table 3. The Top 10 facilities for air releases account for approximately **46%** of all TRI reported air releases. For the top facility, CF Industries, ammonia represented 99% of the releases reported. International Paper in Mansfield reported over 4 million pounds of methanol releases to air.

2004 TOP 10 TRI PARISHES RANKED BY TRI RELEASES TO AIR (IN POUNDS)

RANK	PARISH	# FACILITIES	TOTAL
1	ASCENSION	18	10,166,121
2	EAST BATON ROUGE	23	5,979,217
3	CALCASIEU	33	5,821,192
4	DE SOTO	4	5,116,914
5	ST. CHARLES	22	3,384,724
6	ST. JAMES	9	2,830,586
7	IBERVILLE	18	2,404,410
8	MOREHOUSE	1	2,137,819
9	BEAUREGARD	4	1,821,900
10	WASHINGTON	2	1,756,484
TOP 10 PARISH TOTAL			41,419,367
STATE TOTAL			53,980,511

Table 4. The Top 10 Parishes account for approximately **77%** of the state's total TRI reported releases. From 2003 to 2004, air releases decreased less than 1% statewide, according to DEQ's database.

2004 TRI RELEASES TO WATER

2004 TOP 10 FACILITIES RANKED BY TRI RELEASES TO WATER (IN POUNDS)			
RANK	FACILITY	PARISH	TOTAL
1	EXXON MOBIL BATON ROUGE REFINERY	EAST BATON ROUGE	2,061,895
2	BASF CORPORATION	ASCENSION	1,029,895
3	CF INDUSTRIES, INC.	ASCENSION	1,001,000
4	SYNGENTA CROP PROTECTION, INC.	IBERVILLE	678,210
5	GEORGIA GULF CORPORATION	IBERVILLE	504,678
6	ANGUS CHEMICAL CO.	OUACHITA	476,063
7	PCS NITROGEN FERTILIZER, L.P.	ASCENSION	379,956
8	EXXONMOBIL CHEMICAL COMPANY	EAST BATON ROUGE	336,488
9	CONOCO PHILLIPS, LAKE CHARLES	CALCASIEU	251,913
10	MONSANTO COMPANY	ST. CHARLES	246,046
TOP 10 FACILITY TOTAL			6,966,144
STATE TOTAL			10,185,512

Table 5. The top facilities in water releases accounted for **68%** of the state's total discharges to water as reported in the TRI. Approximately 99% of the water releases reported by Exxon Mobil were nitrate compounds. Nitrate compounds represented 97% of the water releases reported by BASF.

2004 TOP 10 PARISHES RANKED BY TRI RELEASES TO WATER (IN POUNDS)			
RANK	PARISH	FACILITIES	TOTAL
1	EAST BATON ROUGE	23	2,591,089
2	ASCENSION	18	2,553,910
3	IBERVILLE	18	1,389,803
4	CALCASIEU	33	709,543
5	ST. CHARLES	22	540,524
6	OUACHITA	11	520,514
7	ST. BERNARD	3	287,102
8	MOREHOUSE	1	228,684
9	DE SOTO	4	174,158
10	TANGIPAHOA	6	159,799
TOP 10 PARISH TOTAL			9,155,126
STATE TOTAL			10,185,512

Table 6. The top parishes in water releases accounted for approximately **90%** of the state's total water discharges as reported to TRI. According to the state database, water releases dropped approximately 1% from 2003 to 2004.

2004 TRI RELEASES TO LAND

TOP 10 FACILITIES RANKED BY TRI RELEASES TO LAND (IN POUNDS)			
RANK	FACILITY	PARISH	TOTAL
1	CHEMICAL WASTE MANAGEMENT	CALCASIEU	4,831,172
2	LOUISIANA PIGMENT COMPANY L.P.	CALCASIEU	3,585,185
3	INTERNATIONAL PAPER, MANSFIELD	DE SOTO	3,147,582
4	CLECO CORPORATION - DOLET HILL	DE SOTO	3,125,993
5	BIG CAJUN 2	POINTE COUPEE	1,787,094
6	KAISER ALUMINUM AND CHEMICAL	ST. JAMES	1,195,720
7	GEORGIA PACIFIC CORP.	EAST BATON ROUGE	637,303
8	INTERNATIONAL PAPER - LA MILL	MOREHOUSE	512,144
9	DOW CHEMICAL COMPANY	IBERVILLE	496,652
10	GRAPHIC PACKAGING INTL	OUACHITA	367,247
TOP 10 FACILITY TOTAL			19,686,092
STATE TOTAL			21,103,228

Table 7. The top facilities reporting releases to land under TRI accounted for **93%** of the state's total land releases, including landfills, surface impoundments, and other on-site land releases. Chemical Waste Management reported 23% (over 1 million pounds) of nickel compounds for landfills, whereas approximately 100% of Louisiana Pigment's releases were manganese compounds.

2004 TOP 10 PARISHES RANKED BY TRI RELEASES TO LAND (IN POUNDS)			
RANK	PARISH	# FACILITIES	TOTAL
1	CALCASIEU	33	8,424,388
2	DE SOTO	4	6,323,202
3	POINTE COUPEE	3	1,787,094
4	ST. JAMES	9	1,199,334
5	EAST BATON ROUGE	23	936,043
6	MOREHOUSE	1	512,144
7	IBERVILLE	18	497,078
8	OUACHITA	11	367,487
9	NATCHITOCHES	5	344,652
10	BEAUREGARD	4	280,274
TOP 10 PARISH TOTAL			20,671,696
STATE TOTAL			21,103,228

Table 8. The top parishes in releases to land as reported in TRI accounted for almost all (**98%**) releases in the state. Statewide, land releases increased from 2003 to 2004 by approximately 11%.

2004 TRI RELEASES TO UNDERGROUND INJECTION

2004 TOP 10 FACILITIES RANKED BY TRI RELEASES TO UNDERGROUND INJECTION (IN POUNDS)

RANK	FACILITY	PARISH	TOTAL
1	MONSANTO COMPANY	ST. CHARLES	12,676,480
2	CYTEC INDUSTRIES, INC.	JEFFERSON	9,168,979
3	ANGUS CHEMICAL CO.	OUACHITA	7,692,103
4	RUBICON, INC.	ASCENSION	5,370,640
5	CROMPTON MFTG.-GEISMAR	ASCENSION	1,249,371
6	CLEAN HARBORS PLAQUEMINE, LLC	IBERVILLE	1,198,844
7	OCCIDENTAL CHEMICAL CORP.	ST. CHARLES	783,000
8	DU PONT PONTCHARTRAIN WORKS	ST. JOHN THE BAPTIST	579,285
9	UOP-SHREVEPORT PLANT	CADDO	371,184
10	CROMPTON CORP, TAFT FACILITY	ST. CHARLES	194,198
TOP 10 FACILITY TOTAL			39,284,084
STATE TOTAL			39,346,976

Table 9. Top facilities with releases to underground injection as reported in TRI accounted for **99%** of the state total. Of the chemicals injected into underground wells by Monsanto, formaldehyde represented 65 % (over 8 million pounds). Nearly 25% of the chemicals injected by Cytec into underground wells were represented by ammonia.

2004 TOP 9 PARISHES RANKED BY TRI RELEASES TO UNDERGROUND INJECTION (IN POUNDS)

RANK	FACILITIES	PARISH	TOTAL
1	22	ST. CHARLES	13,653,678
2	23	JEFFERSON	9,168,979
3	11	OUACHITA	7,692,103
4	18	ASCENSION	6,620,102
5	18	IBERVILLE	1,203,845
6	11	ST. JOHN THE BAPTIST	608,025
7	22	CADDO	371,184
8	5	BOSSIER	23,016
9	12	PLAQUEMINES	6,044
TOP PARISH TOTAL			39,346,976
STATE TOTAL			39,346,976

Table 10. Top parishes in releases to underground injection as reported in TRI accounted for **100%** of the state total. Statewide totals indicated an increase from 2003 to 2004 by approximately 10%.

2004 TOP CHEMICALS RELEASES IN LOUISIANA AS REPORTED IN TRI

2004 TOP 10 CHEMICALS

RANK	CHEMICAL	AIR	WATER	LAND	INJECTION	TOTAL
1	METHANOL	14,342,510	194,755	370,639	2,680,594	17,588,498
2	AMMONIA	11,747,287	617,503	6,456	4,011,773	16,383,019
3	FORMALDEHYDE	368,928	33,530	25,460	10,674,989	11,102,907
4	NITRATE COMPOUNDS	0	8,510,796	17,997	1,731,734	10,260,527
5	MANGANESE COMPOUNDS	45,716	391,258	5,964,830	0	6,401,804
6	NITRIC ACID	45,371	5	920	5,219,307	5,265,603
7	BARIUM COMPOUNDS	70,200	40,931	4,299,382	831	4,411,344
8	FORMIC ACID	30,425	2,939	0	4,300,082	4,333,446
9	ZINC COMPOUNDS	121,547	72,325	3,952,046	287	4,146,206
10	N-HEXANE	3,690,006	350	57	42,177	3,732,589
TOP 10 CHEMICAL TOTAL						83,625,944
STATE TOTAL						124,616,228

Table 11. Top 10 chemicals reported in the TRI represented **67%** of all chemicals reported statewide. Methanol was reported by 92 facilities and ammonia was reported by 71. Top reporter of methanol was International Paper, Mansfield; for ammonia, CF Industries; and for formaldehyde, top reporter was Monsanto.

As a highly industrialized state, Louisiana is characterized by certain areas which are noted for their large clusters of facilities that developed out of a need for easy access to railroads and waterways. These cluster areas or "corridors," namely Mississippi River Corridor and Calcasieu Corridor, have been tracked in the database through the years. The data for the corridors are shown in Tables 12 and 13.

2004 MISSISSIPPI RIVER CORRIDOR PARISHES TRI RELEASES

RANK	2004 MS RIVER CORRIDOR PARISHES		
	PARISH	# FACS	TOTAL
1	ASCENSION	18	19,378,355
2	ST. CHARLES	22	17,582,188
6	JEFFERSON	23	9,659,358
7	EAST BATON ROUGE	23	9,506,348
8	IBERVILLE	18	5,495,135
9	ST. JAMES	9	4,147,538
14	ST. JOHN THE BAPTIST	11	1,543,819
18	ST. BERNARD	3	1,242,588
20	WEST FELICIANA	1	765,495
21	PLAQUEMINES	12	712,877
22	WEST BATON ROUGE	14	652,857
28	ORLEANS	7	184,704
MS River Parish Total			70,871,262
STATE TOTAL			124,616,228

Table 12. Total releases by Mississippi River Corridor Parishes accounted for **57%** of the statewide releases as reported to TRI.

2004 CALCASIEU PARISH TRI RELEASES BY FACILITY (IN POUNDS)

FACILITY	AIR	WATER	LAND	INJECTION	TOTAL
AIR PRODUCTS AND CHEMICALS, INC.	2,250	0	0	0	2,250
ARCH CHEMICALS INCORPORATED	846	0	0	0	846
BASELL USA, INC.	77,788	0	0	0	77,788
BIOLAB INC	19,771	0	0	0	19,771
BOLLINGER CALCASIEU, L.L.C	13,046	0	7,200	0	20,246
CALCASIEU REFINING COMPANY	19,166	88	96	0	19,350
CARBOLINE COMPANY	5,420	0	0	0	5,420
CERTAINTED CORPORATION	2,200	0	0	0	2,200
CHEMICAL WASTE MANAGEMENT	596	0	4,831,172	0	4,831,768
CITGO PETROLEUM CORPORATION	1,467,308	98,724	0	0	1,566,031
CONOCOPHILLIPS LAKE CHARLES	808,992	251,913	0	0	1,060,905
ENTERGY - ROY S. NELSON	168,791	9,723	0	0	178,514
FIRESTONE POLYMERS	1,726,371	0	0	0	1,726,371
GEORGIA GULF LAKE CHARLES, L.L.C.	37,006	0	0	0	37,006
GULF COAST LUBES PLANT	761	271	0	0	1,032
LAKE CHARLES CARBON COMPANY	52,004	12	735	0	52,751
LOUISIANA PIGMENT COMPANY L.P.	15,290	5,217	3,585,213	0	3,605,721
LYONDELL CHEMICAL	133,460	203,535	0	0	336,995
OHMSTEDE, INC.	0	0	0	0	0
PPG INDUSTRIES, INC.	306,509	116,315	0	0	422,825
PUMPELLY OIL COMPANY	0	0	0	0	0
RESIN SYSTEMS, INC.	7,100	0	0	0	7,100
SASOL NORTH AMERICA LAKE CHARLES	268,105	630	0	0	268,735
SOUTHERN IONICS, INC.	303	0	0	0	303
SPARTECH POLYCOM, INC	0	0	0	0	0
TETRA CHEMICALS, INC.	2,944	0	0	0	2,944
VENTURE COKE COMPANY, L.L.C.	164,260	6	0	0	164,266
W.R. GRACE & CO.	131,615	29,040	0	0	160,655
WESTLAKE PETROCHEMICALS CORPORTION	93,050	0	0	0	93,050
WESTLAKE PETROCHEMICALS LP	162,317	26	0	0	162,343
WESTLAKE POLYMERS LP-1 & II	316,167	0	0	0	316,167
WESTLAKE STYRENE LP	12,561	0	0	0	12,561
WESTLAKE STYRENE LP-MARINE TERMINAL	12,338	0	0	0	12,338
CALCASIEU FACILITIES TOTAL	6,028,335	715,500	8,424,416	0	15,168,252
STATE TOTAL	53,980,511	10,185,512	21,103,228	39,346,976	124,616,228

Table 13. Facilities in Calcasieu Parish represented approximately **11%** of the air releases, **7%** of the water releases, and **40%** of the land releases and none of the underground injection statewide as reported to TRI. Overall, Calcasieu Parishes accounted for 12% of all reported TRI releases statewide.